

## Proposed Project

Upper Little Patuxent

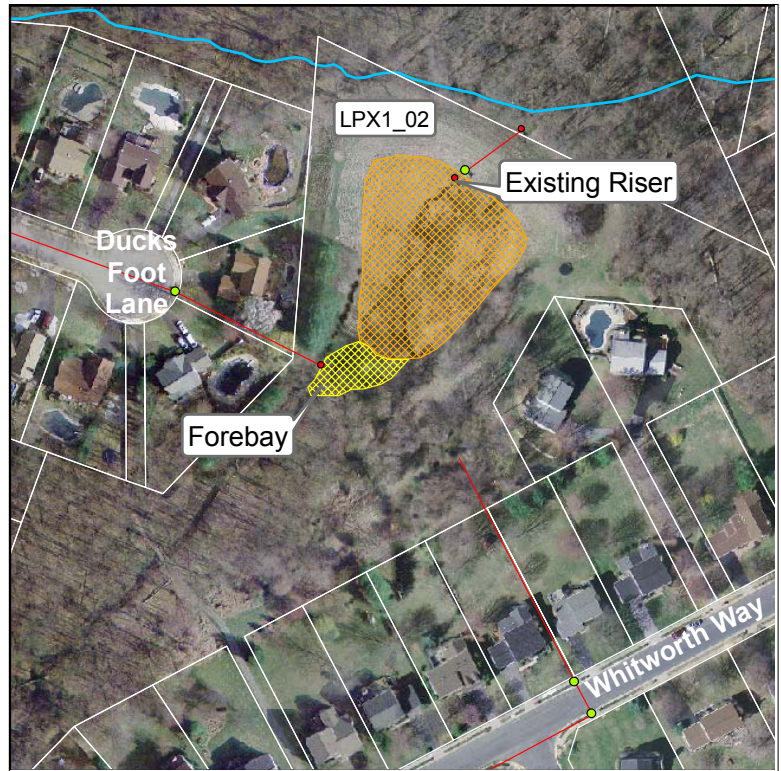
**Project Number:** LPX1\_02

**Subwatershed:** Little Patuxent 1

**Project Type:** Pond Retrofit

**Project Size:** 78.1 acre drainage area/18.2 acres impervious

**Project Location:** At the end of Duck's Foot Lane.



**Project Description:** This project would entail retrofitting an existing pond off of Duck's Foot Lane which captures runoff from adjacent communities and a portion of Centennial Lane. The existing riser would be converted to allow a wet pond to form. The pond would be excavated to increase detention volume and provide pollutant removal and stream bank protection closer to current design standards. The design would incorporate water quality features such as a micropool, aquatic bench, forebay, and a meandering flow path.

Because the project involves conversion to a wet pond and is located near private residences, property owners would be kept informed and involved in the planning and design process.

### Project Benefits:

Water Quality	Conversion to a wet pond / wetland designed to current standards would provide water quality treatment and pollutant removal.
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### Project Constraints:

Environmental	No environmental constraints are anticipated with this project.
Property Ownership	This property is on County owned open space (Burleigh Manor natural resources open space).
Facility Access	Access may be difficult due to proximity of houses and stream. Additionally, a paved walking path used by elementary students is nearby.
Design / Construction	No significant design or construction issues (besides access) were noted.

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### Cost Detail:

ITEM	QTY	UNITS	UNIT COST	TOTAL
<b>Site Work</b>				
Clear and Grub	0.7	AC	\$5,000.00	\$3,550
Pavement / Sidewalk Removal		SY	\$7.50	\$0
Curb-Gutter Removal		LF	\$10.00	\$0
Remove Pilot Channels		LF	\$6.00	\$0
Remove Barrel Pipe		LF	\$77.00	\$0
<b>Pond Construction</b>				
Grading and Excavation (Class I)	2,534	CY	\$30.00	\$76,020
Hauling and Disposal	2,534	CY	\$20.00	\$50,680
Embankment		CY	\$60.00	\$0
Forebay	255	CY	\$45.00	\$11,475
Safety bench	433	CY	\$30.00	\$12,990
Riser		LS	\$10,000.00	\$0
Outflow Pipe		LF	\$80.00	\$0
Outlet Protection	1	LS	\$8,000.00	\$8,000
Rip Rap Stabilization		LF	\$50.00	\$0
SWM Landscaping	3,424	SY	\$10.00	\$34,240
			<b>Direct Construction Subtotal</b>	<b>\$196,955</b>
<b>Indirect Costs</b>				
E/SC, MOT, MOS (20% of Directs or \$10,000)	1	LS	\$39,391.00	\$39,391
Construction Stakeout (\$1,000/Day)	3	Day	\$3,000.00	\$3,000
			Base Construction Cost	\$239,346
			Mobilization (10% of Directs or \$1,000)	\$19,696
			<b>Subtotal</b>	<b>\$259,042</b>
			Contingency (30%)	\$77,712
			<b>Construction Subtotal</b>	<b>\$336,754</b>
			Env't'l Studies / Permitting (5% of Construction or \$5,000)	\$16,838
			Engineering and Surveys (25% of Construction or \$40,000, maximum \$50,000)	\$50,000
			<b>Total Capital Cost</b>	<b>\$403,592</b>
<b>Operations and Maintenance Costs</b>				
Annual Maintenance	6	Percent	\$11,817	
Discount Rate	5	Percent		
Expected Life	20	Years		
			<b>Net Present Value of O&amp;M Costs</b>	<b>\$147,270</b>
			<b>Life Cycle Cost</b>	<b>\$550,900</b>